Principles and Practices of Sterile Technique

Aseptic Technique Terminology

- Antisepsis--Against infection:
- Antiseptic--A chemical solution.
- Asepsis--Sterile.
- Aseptic technique--Method to prevent contamination.

Aseptic Technique Terminology

- Surgical Conscience--strict adherence to the principles of sterile tech. Applies to all.
- Cross-contamination--Transmission of microorganisms from patient to patient.
- Contaminated--Unclean.

Aseptic Technique Terminology

- Decontamination--Cleaning/disinfecting.
- Nosocomial infection--Acquired infection while being treated as a patient.
- Bioburden--Amount of contamination on an object.

Aseptic Technique Terminology

- Infection--Invasion of the body by pathogenic microorganisms.

Application of the Principle, Supplies/Inst. must be Sterile

- If in doubt about sterility, consider it contaminated. Throw it out.
- Instruments/supplies must be sterilized.
- Check expiration date.

Application of the Principle, Supplies/Inst. must be Sterile

- Check outside tape.
- Check integrity of the packaging material.
- Scrub checks inside sterile indicator.

Application of the Principle, Sterile Team Members are Gowned and Gloved

- Gown and glove from a separate sterile surface.
- Gowns sterile from front chest to level of sterile field.

Application of the Principle, Sterile Team Members are Gowned and Gloved

- Unsterile areas of gown:
- Stockinette cuffs covered with sterile gloves.

Application of the Principle, Sterile Team Members are Gowned and Gloved

- Sterile persons keep their hands above the waist.
- Avoid changing levels, during surgery.

Application of the Principle, Sterile drapes used to create a sterile field

- Sterile on the top surface only.
- Anything falling or extending over the table edge is considered contaminated.

STERILE FIELD

Sterile Field - Variation

- Packages, wrappers, instrument containers are used to protect sterile items. They may be used as a small sterile field during the transfer period.

Application of the Principle, Sterile drapes are used to create a sterile field

- Do not reposition drapes.
- Cover entire surface.

Application of the Principle, Sterile drapes are used to create a sterile field

- Sterile persons stand back at a safe distance.

Application of the Principle, Sterile drapes are used to create a sterile field

- Drapes are unfolded and applied gently. Any turbulence may move particular material.

Application of the Principle, Sterile Team Members Touch Sterile Items

- Sterile members performed surgical scrub, gowned and gloved.
- Unsterile members have not performed surgical scrub.

Application of the Principle, Sterile Team Members Touch Sterile Items

- Sterile members touch only sterile surfaces.
- Unsterile members touch unsterile surfaces.

Application of the Principle, Sterile Team Members Touch Sterile Items

- Unsterile persons maintain a distance of at least one foot from any sterile field.
- Unsterile persons never walk between two sterile fields.

Sterile Items Dispensed Preserve Integrity of the Sterile Field

- Circulator never reaches over a sterile field.
- Dust may fall on the sterile field.
- Circulator may reach behind/between sterile fields.

Sterile Items Dispensed Preserve Integrity of the Sterile Field

- Wrapper edges are considered unsterile.
- Inside wrappers area is sterile to one inch of edge.

Sterile Items Dispensed Preserve Integrity of the Sterile Field

- Peel package inner edge of the heat seal is the line of demarcation between sterile and unsterile.

DEMARCATION

Peel Packs - Sterile Boundaries

- Regardless the size of the sealed package, the inner edge of the seal is considered the sterile boundary

Opening a Sterile Package

- Open top flap away from self.
- Turn sides under.
- The last flap is pulled toward the person opening the package exposing the contents away from the unsterile hand.

Flaps Pulled back on Peel Packages

- Sterile contents flipped or lifted upward onto a sterile field.
- Never slide off/over the package edge.
- Scrub may grasp and lift item straight up.

OPENING WRAPPERS

Opening a wrapped item: Step 1

- There are four “tabs” representing the four corners of the wrapper
- Tab 1 is opened away from the unsterile team members body

Step 2

- Tabs are held underneath the package as they are opened to prevent the edges from (1) “flipping” back and touching the sterile item (2) touching other sterile items

OPENING WRAPPERS

Step 3

- Tabs 2 and 3 are opened in the same manner without reaching over the sterile contents of the packet

Step 4

- Tab 4 is opened toward the unsterile team member
- Note: that tabs 1-3 are carefully controlled at this point

OPENING WRAPPERS

Step 5

- All tabs are controlled
- Item is ready for placement onto the back table
- Safe distance is maintained

Step 6

- Using the proper tossing technique, the items in the wrapped package are deposited onto the back table

Sterile Items Dispensed Preserve Integrity of the Sterile Field

- Basin, glasses and cups are set near the edge of the sterile table.
- Hold only the lip of the bottle over the basin when pouring sterile solution.

Sterile Items Dispensed Preserve Integrity of the Sterile Field

- Sterile bottle contents must be used or discarded after opening.

Sterile Field is Created as Close as Possible to Time of use

- Contamination is proportionate to length of time exposed to environment.
- Covering sterile tables is not recommended.

Sterile Field is Created as Close as Possible to Time of use

- Sterile fields must be monitored at all times.

Sterile Team Members Stay Well Within the Sterile Area

- Do not aimlessly walk around.
- Pass each other back to back or front to front.

Sterile Team Members Stay Well Within the Sterile Area

- Sitting or leaning against an unsterile surface is a break in aseptic technique.
- Faces a sterile area to pass it.

Sterile Team Members Stay Well Within the Sterile Area

- Sterile person turns back to an unsterile person or area when passing.
- Sterile person asks a unsterile person to step aside.

Sterile Team Members Stay Well Within the Sterile Area

- Unsterile persons face and observe a sterile area when passing it to be sure they do not touch it

Sterile Team Members Stay Well Within the Sterile Area

- Circulator should not tolerate excessive traffic in and out of the surgical suite.

Sterile Team Members Stay Well Within the Sterile Area

- Sterile persons may rest their hands on any sterile field.
- Sterile items handled during preparation or use.

Sterile Team Members Stay Well Within the Sterile Area

- Check for wet spots before opening supplies.
- Cover spills with sterile drapes or towels.

Sterile Team Members Stay Well Within the Sterile Area

- Do not store supplies where splashing may occur.

Sterile Persons Handle Sterile Items as Little as Possible

- The more items are handled the bigger the risk of contamination.
- Sterile gloves are a thin barrier between sterility and contamination.

Sterile Persons Handle Sterile Items as Little as Possible

- Place sterile items where they belong.

Destruction of Integrity of Microbial Barriers result in Contamination

- Integrity destroyed by perforation, puncture, or strike-through.
- Place cloth towel down on sterile field.
- Use non-perforating clips.

Destruction of Integrity of Microbial Barriers result in Contamination

- Handle sterile packages with clean dry hands.

Some Operative Areas Cannot be Made Sterile

- Skin cannot be sterilized.
- Nose, mouth, genitourinary track etc. cannot be made into sterile fields.
- Aseptic technique is observed to prevent contamination.

QUESTIONS